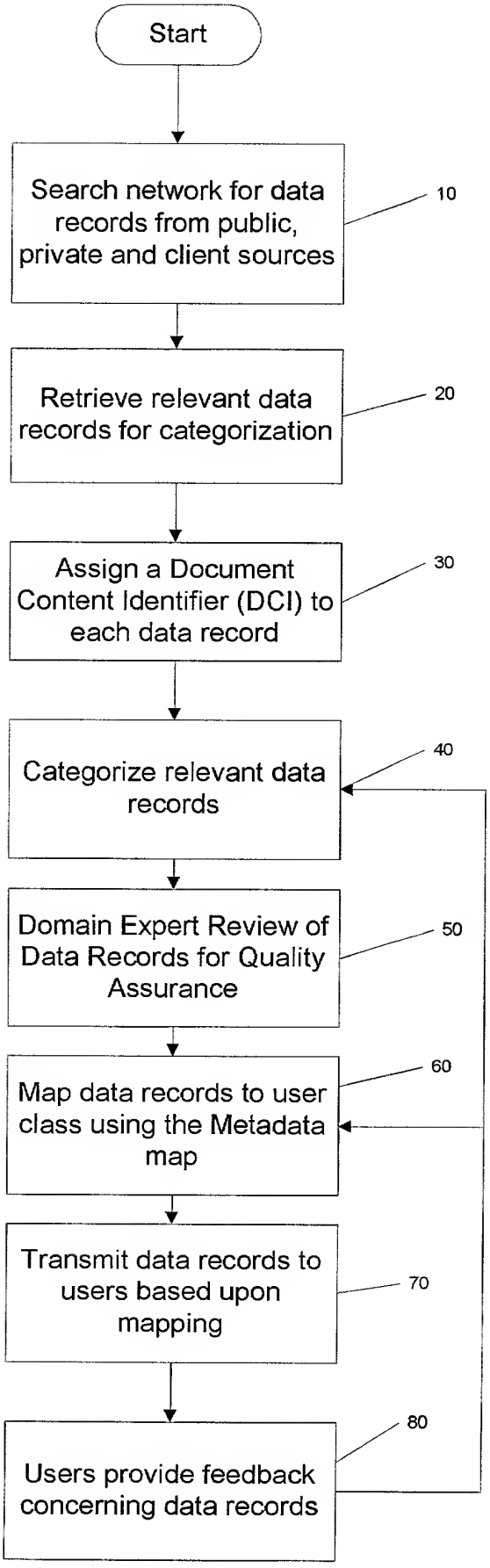

Figure 1

I

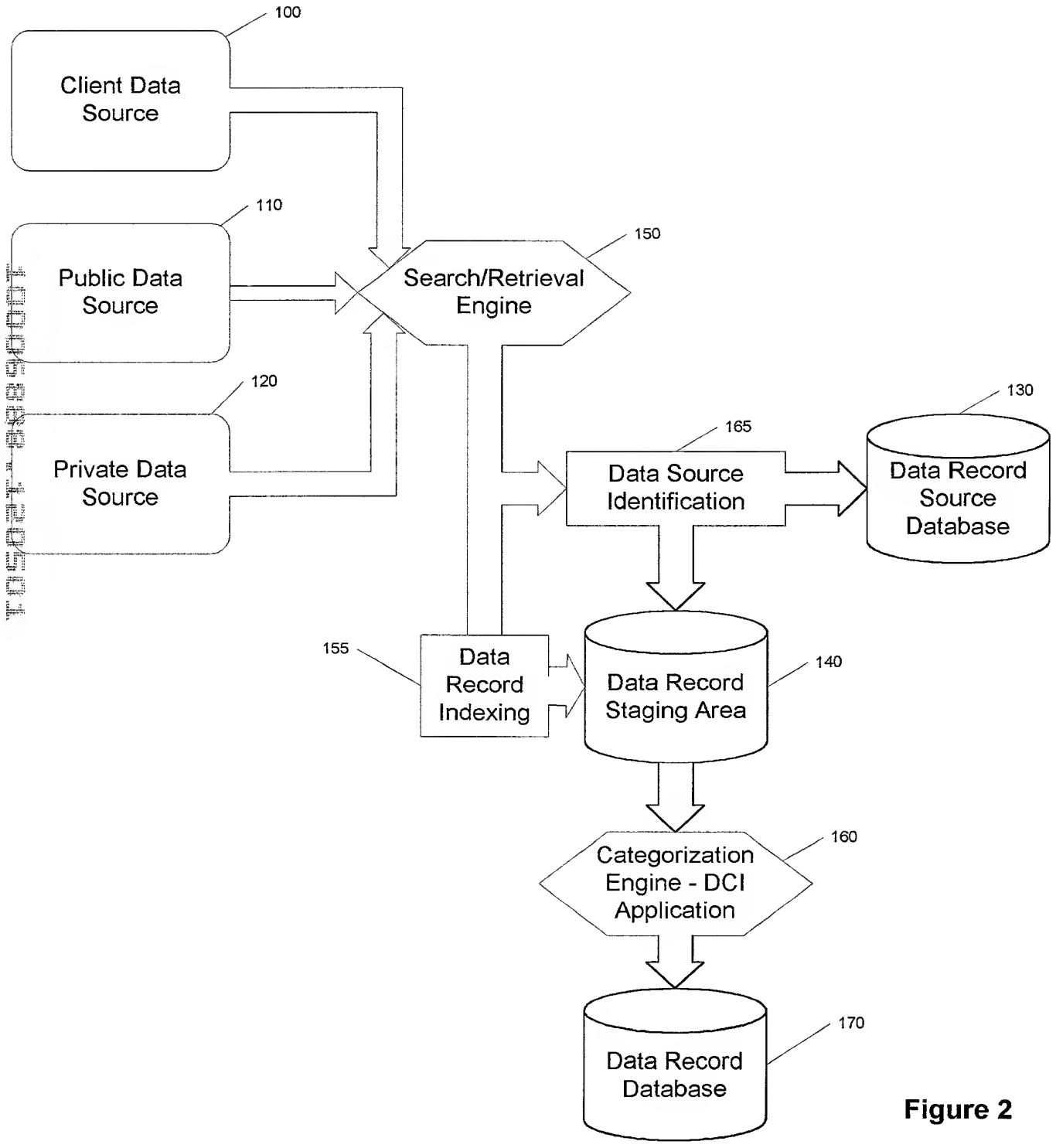
100
Client Data Source
110
Public Data Source
120
Private Data Source
150
Search/Retrieval Engine
165
Data Source Identification
130
Data Record Source Database
155
Data Record Indexing
140
Data Record Staging Area
160
Categorization Engine - DCI Application
170
Data Record Database

Figure 2

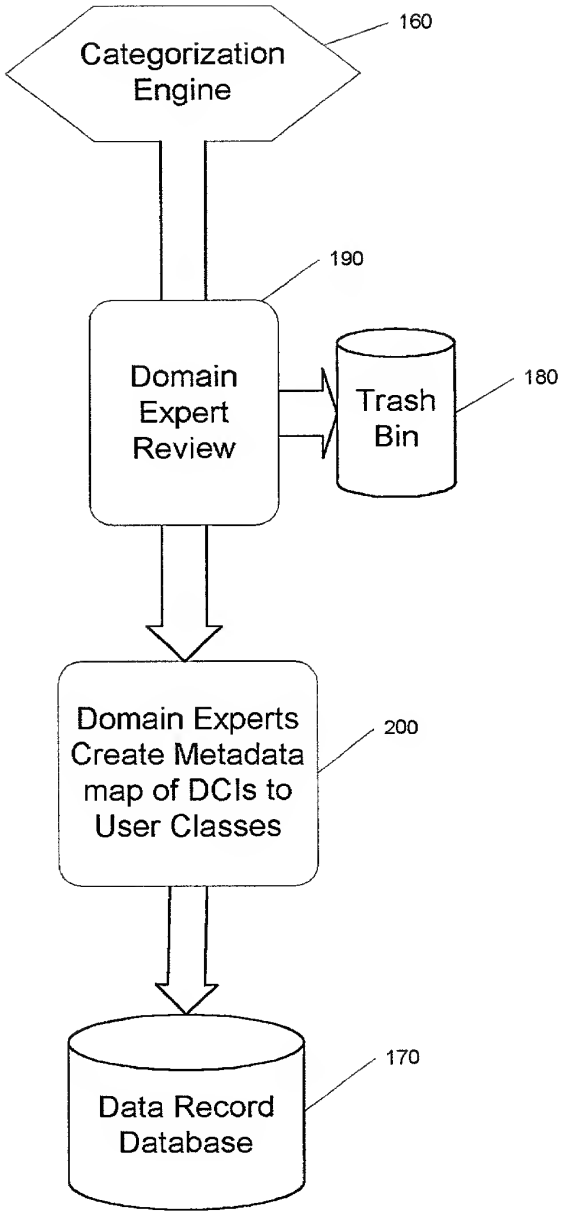
Categorization Engine
160
190
Domain Expert Review
Trash Bin
180
Domain Experts Create Metadata map of DCIs to User Classes
200
Data Record Database
170

Figure 3

Exemplary Data Record

Electronic Industries Alliance

2500 Wilson Blvd., Arlington, VA 22201-3834

State Mercury-Containing Product Legislation

Summary

States have enacted or introduced legislation that would require the labeling, collection, or phase-out of mercury-containing products, such as mercury-containing lamps. EIA opposes such legislation because the amount of mercury used in electronic applications is so small that regulating such uses would have a negligible impact on reducing mercury releases to the environment.

Background

Some electronic products, such as laptop computers, digital cameras, flat panel televisions, and copier and fax machines, include mercury-containing lamps for illumination and energy efficiency. Currently, there is no cost-effective alternative to mercury-containing lamps in electronic products. The amount of mercury in these lamps is very small and is usually measured in micrograms.

States have introduced and, in some cases, enacted legislation to require the labeling, collection, and/or phase-out of certain mercury-containing products. The stated goal of such legislation is to reduce the amount of mercury entering the environment when mercury-containing products are disposed of in landfills and through incineration. States that have enacted mercury legislation include Minnesota, Vermont, New Hampshire, and Maine. States that have or are considered enacting legislation include New York, Rhode Island, and Connecticut. The Northeast Waste Management Officials Association (NEWMOA) recently drafted "model" mercury legislation that it hopes will trigger the enactment of region-wide mercury legislation.

Emissions from coal-fired electric power plants and other combustion sources represent the largest source category of mercury emissions to the environment (87%). Of the other sources, only 10% of mercury emissions to the environment can be attributed to manufacturing sources. Of that small fraction, less than 0.1% of mercury emissions is attributed to all electrical applications – a category which includes all lamps and electrical lights – not just lamps used in electronic applications. If legislation succeeds in banning or regulation the use of mercury in electronics, it will have a negligible impact on the total amount of mercury released to the environment, yet impose large costs on the industry and, in turn, on consumers.

EIA Position

EIA opposes legislation that would regulate or ban the use of mercury in electronic applications. Although the stated goal of proposed legislation is to reduce mercury emissions to the environment, there is no evidence that regulating or banning the use of mercury in electronics would achieve that goal. In fact, due to the energy efficiency benefits associated with the use of mercury lamps, regulating or banning such uses may result in greater mercury releases to the environment since more mercury releases from coal-fired electric power plants may result. In order to demonstrate its commitment to ensuring the proper end-of-life management of electronic products, EIA and its members have developed a Consumer Education Initiative (CEI), which will inform consumers about voluntary electronic recycling programs.

Outlook

It is likely that states will continue to introduce legislation to regulate or ban the use of mercury in electronic applications. Such legislation will not achieve its intended goal of reducing mercury releases to the environment. As an alternative, EIA will promote its Consumer Education Initiative (CEI), which will encourage consumers to properly manage and recycle used electronics.

Exemplary Document Content Identifiers

DCI_1 = Electronics Industry;
DCI_2 = Mercury;
DCI_3 = Toxics Reduction .....

Figure 4

Exemplary User Class
Metadata Map

UC_1

DCI_1 = ISS_GreenhouseGases
DCI_2 = EST_ResourceOptimization_EnergySystems_CarbonManagement
DCI_3 = EST_ResourceOptimization_EnergySystems_CarbonTrading
. .....
DCI_N = EST_ResourceOptimization_EnergySystems_DistributedGeneration

wherein UC_1 represents Greenhouse Gas Managers

Figure 5

System 1

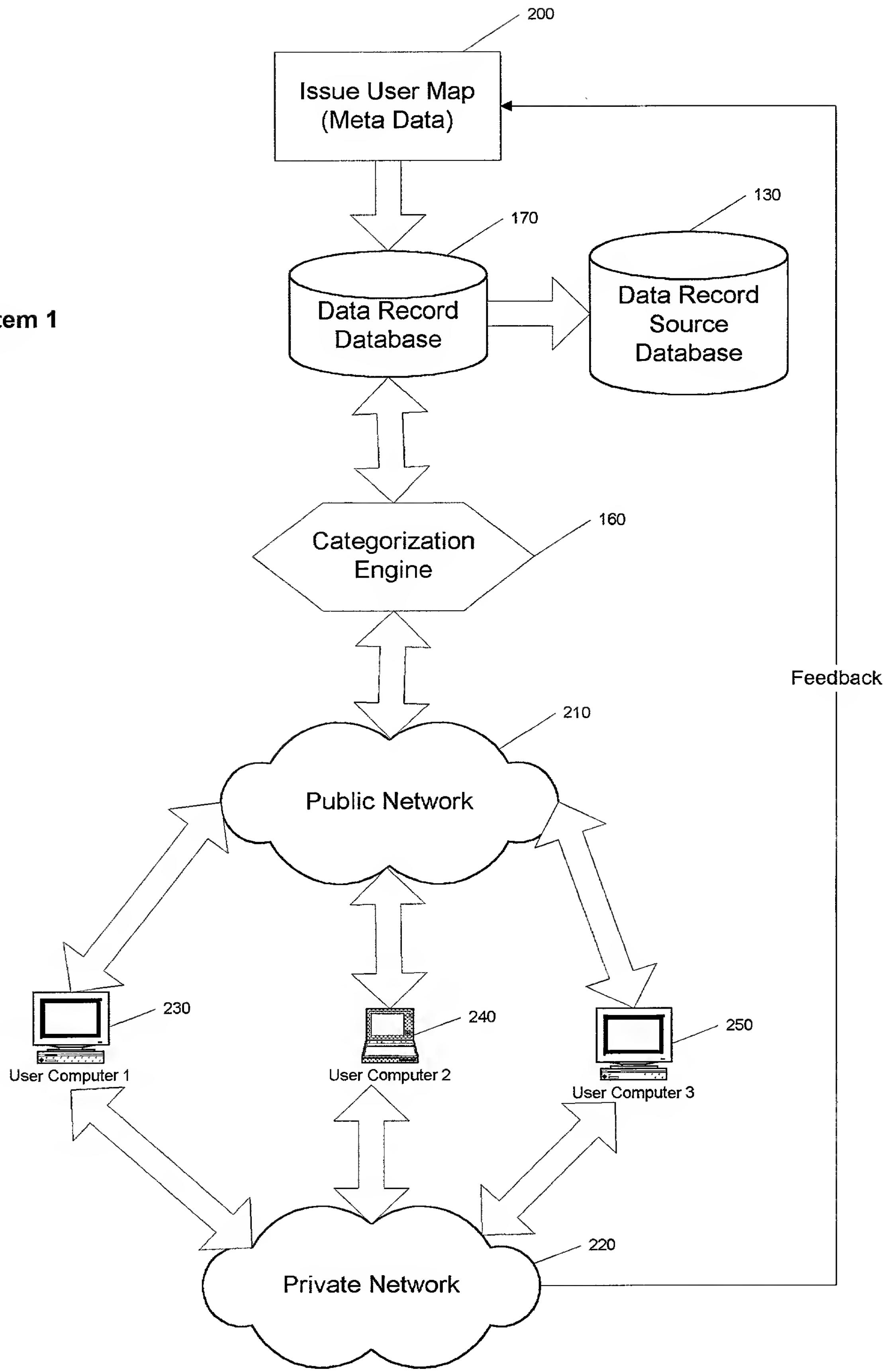

Figure 6

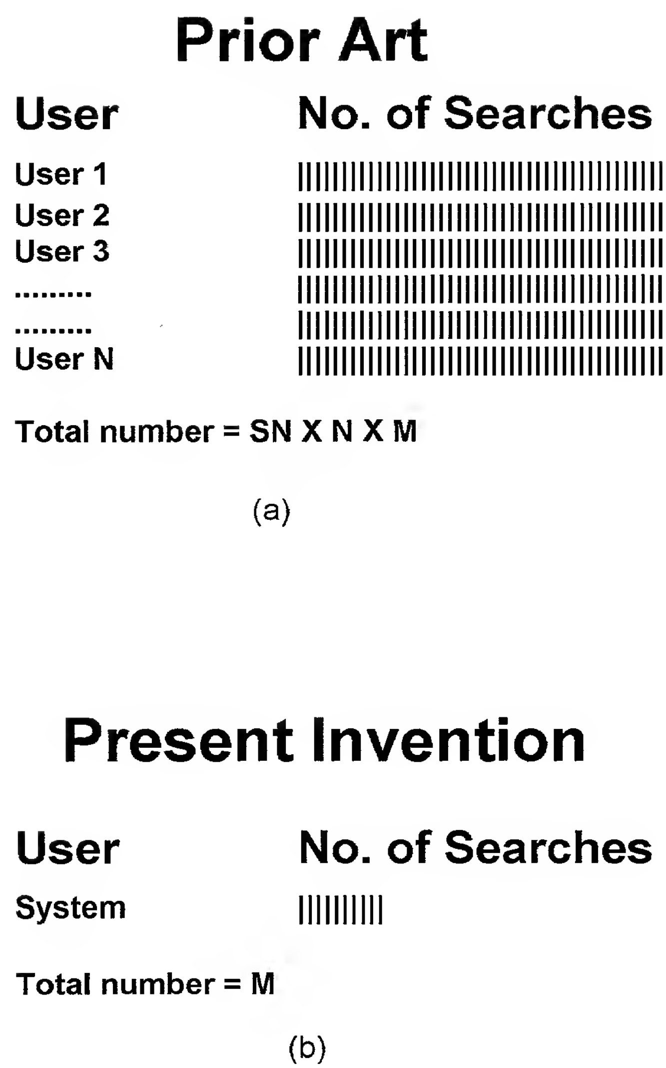
Prior Art
User
No. of Searches
User 1
User 2
User 3
....
....
User N
Total number = SN X N X M
(a)
Present Invention
User
No. of Searches
System
Total number = M
(b)

Figure 7